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Mineral Industry Surveys

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ANTIMONY IN THE FOURTH QUARTER 2002

The price of antimony metal continued its marked rise in October, when the New York dealer price, published by Platts Metals Week, reached $1.42 per pound. After that, the averages slid for the duration of the fourth quarter. The November average was $1.36 per pound and the December average was $1.28 per pound. The December average, however, represented a doubling of the January 2002 average of $0.63 per pound.

Production and consumption of most forms of antimony continued to be impacted by both the slack general economy and also weak specific end use markets. Estimated production and consumption figures for the fourth quarter generally showed a continuation of a marked decrease from prior quarters and the prior year.

Production of antimony at the Kyrgyz antimony smelter, Kadamzhay Antimony Combine, has fallen dramatically. In the first 11 months of 2002 Kadamzhay produced 1,300 metric tons (t) of antimony, a decline of 40% from the comparable period of 2001, and significantly below the target set at the start of 2002, of 3000 t. Reportedly the Combine has been unable to source antimony feedstock and is relying on low-grade and recycled material. Kadamzhay is the only antimony smelter in the Commonwealth of Independent States, and has relied on feed from the antimony mines in Sakha (Yakutiya) Republic, Anzobsky GOK in Tajikistan, and the Ust-Kamenogorsk Titanium-Magnesium Combine in Kazakhstan.

Mines in Sakha (Yakutiya) Republic produced a gold-antimony concentrate, but these mines are believed to be temporarily closed. Anzobsky GOK in Tajikistan has been the main source of antimony concentrates for Kadamzhay in recent years. They produce a concentrate containing both antimony and mercury. This material is difficult to treat and is first processed by the Khaydarken Mercury Combine in Kyrgyzstan for removal of the mercury, before being delivered to Kadamzhay for processing the antimony. Kazakh producer Ust-Kamenogorsk produces an antimony-containing bullion as a by-product of their other metals production, but the Combine has recently begun exporting their material for processing to China (Metal-Pages, 2003b§[1]).

China's State Economic and Trade Commission (SETC) announced that it will actively guide reforms within the country's nonferrous metal industry and assist companies hoping to cope with the problems emerging in their business operations. SETC pledged to increase the macro control of the mining, separating, smelting, imports and exports of China's scarce nonferrous metal ores and will formulate a comprehensive development program for the country's strategic minerals including: antimony, molybdenum, niobium, tantalum, and tungsten. Also, the organization said that it will pay specific attention to the border trade and smuggling that causes damage to the industry (Metal Pages, 2003a§).

[1]References that include a section twist (§) are found in the Internet References Cited section.

Notice

The U.S. Geological Survey (USGS) will no longer print paper copies of the *Mineral Industry Surveys* for mailing list distribution after release of the Fourth Quarter 2002 report. The report will continue to be available on the USGS Web site at URL: http://minerals.usgs.gov/minerals.

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China's Ministry of Foreign Trade and Economic Cooperation announced that the 2003 quota for exports of antimony ingot and other antimony semiproducts will be 67,000 t, about 4% lower than last year. According to Metal Pages (2002§), these following firms will be granted export licenses:

China Minmetals Nonferrous Metals Industry Trading Corp.
Xikuangshang Mining Administration
Hunan Zhongnan Minmetals I/E Co.
Guangdong Minmetals I/E Co.
Yunan Minmetals I/E Corp.
Liuzhou China Tin Corp.
Guangxi Minmetals I/E Corp.
Guizhou Minmetals I/E Co.
Haikou Minmetals Machinery Chemicals and Medicines I/E Co.

Hsikwangshan Mining Administration (China) mines antimony at its Lengshuijiang Mine in Hunan Province. At full capacity, the mine is capable of producing 37,000 t of antimony annually (Metal Bulletin, 2003).

Reference Cited

Metal Bulletin, 2003, Hsikwangshan predicts steady antimony output: Metal Bulletin, no. 8740, January 16, p. 8.

Internet References Cited

Metal-Pages, 2002 (December 20), China announces 2003 antimony quotas, accessed December 23, 2002, via URL http://www.metal-pages.com/.
Metal-Pages, 2003a (January 27), SETC to guide China's nonferrous metal reforms in 2003, accessed January 28, 2003, via URL http://www.metal-pages.com/.
Metal-Pages, 2003b (January 3), Supply problems slash Kadamzhay antimony production, accessed January 6, 2003, via URL http://www.metal-pages.com/.

TABLE 1
SALIENT ANTIMONY STATISTICS 1/

(Metric tons, antimony content, unless otherwise specified)

		2002			
	2001	First quarter	Second quarter	Third quarter	Fourth quarter
Production:					
Primary smelter 2/	18,000	W	W	W	W
Secondary	6,660	1,410	1,340	1,320	1,140
Imports for consumption:	37,900	5,950	6,860	7,130 r/	5,130 3/
Ore and concentrate	2,290	281	399	248 r/	178 3/
Metal	12,600	1,520	1,090	716 r/	563 3/
Oxide 4/	23,000	4,150	5,360	6,170 r/	4,390 3/
Exports:	9,340	5,320	2,740	646 r/	1,580
Metal, alloys, and scrap (gross weight)	1,730	439	786	230	150
Oxide 4/	5,880	4,880	1,960	416	1,430
Consumption of primary antimony	13,000	3,350	3,390	3,240 r/	2,770
Price: Average cents per pound 5/	65.50	60.84	64.45	93.02	135.25
Stocks, end of period 6/	10,300	5,060	5,600 r/	5,680 r/	5,600

r/ Revised. W Withheld to avoid disclosing company proprietary data.

1/ Data are rounded to no more than three significant digits, except prices.

2/ Nearly all smelter output is trioxide.

3/ Data for October and November only.

4/ Antimony content is calculated by the U.S. Geological Survey.

5/ New York dealer price for 99.5% to 99.6% metal, c.i.f. U.S. ports.

6/ Producer and consumer stocks.

TABLE 2
INDUSTRY STOCKS OF PRIMARY ANTIMONY IN THE UNITED STATES 1/

(Metric tons, antimony content)

	2002 2/			
Class of material	First quarter	Second quarter	Third quarter	Fourth quarter
Metal	774	769	793 r/	754
Oxide	4,030	4,580	4,630 r/	4,590
Other 3/	253	252	250	250
Total	5,060	5,600 r/	5,680 r/	5,600

r/ Revised.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Estimated 100% coverage based on reports from respondents who held 90% of the total stocks of antimony at the end of 2001.

3/ Includes ore and concentrate, sulfide, and residues.

TABLE 3
INDUSTRIAL CONSUMPTION OF PRIMARY ANTIMONY 1/ 2/

(Metric tons, antimony content)

		2002			
Class of material consumed	2001	First quarter	Second quarter	Third quarter	Fourth quarter
Metal	1,620	W	W	W	W
Oxide	11,300	2,830	2,870	2,770 r/	2,320
Other 3/	80	525	526 r/	462 r/	448
Total	13,000	3,350	3,390	3,240 r/	2,770

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Other."

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Estimated 100% coverage based on reports from respondents who consumed 69% of the total antimony in 2001.

3/ Includes sulfide and residues.

TABLE 4
REPORTED CONSUMPTION OF PRIMARY ANTIMONY, BY CLASS OF MATERIAL PRODUCED 1/

(Metric tons, antimony content)

Product	2001 2/	2002 2/			
		First quarter	Second quarter	Third quarter	Fourth quarter
Metal:					
Bearing metals and bearings	W	W	W	W	W
Other 3/	2,800	852	837	839 r/	712
Total	2,800	852	837	839 r/	712
Nonmetal:					
Ceramics and glass	W	W	W	W	W
Plastics	W	W	W	W	W
Other 4/	2,590	765	789	703 r/	811
Total	2,590	765	789	703 r/	811
Flame-retardants:					
Plastics	6,210	406	732	686 r/	594
Other 5/	1,380	1,330	1,030	1,010	651
Total	7,580	1,730	1,770	1,690 r/	1,250
Total reported	13,000	3,350	3,390	3,240 r/	2,770

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Other."

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Estimated 100% coverage based on reports from respondents who consumed 69% of the total antimony in 2001.

3/ Includes ammunition, antimonial lead, bearing metals and bearings, cable coverings, castings, sheet and pipe, and solder.

4/ Includes ammunition primers, pigments, ceramics and glass, and plastics.

5/ Includes adhesives, pigments, rubber, and textiles.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF ANTIMONY, BY CLASS AND COUNTRY 1/

(Metric tons, antimony content)

Class and Country	2001	January-June	September	Third quarter 2/	October	November	January-November 2/
Ore and concentrate:							
Australia	314	0	--	--	--	--	--
China	1,530	437	--	119	--	20	576
Other	444	243	85	129	50	108	530
Total	2,290	680	85	248	50	128	1,110
Metal:							
China	9,730	1,860	101	330	228	60	2,480
Hong Kong	1,780	56	--	36	--	--	92
Mexico	667	496	72	197	75	111	880
Peru	--	100	--	131	54	--	285
Singapore	123	--	--	--	--	--	--
Other	315	95	6	20	13	21	149
Total	12,600	2,610	179	716	371	192	3,890
Oxide:							
Belgium	3,130	2,010	115	441	240	126	2,810
China	9,150	2,560	570	2,050	896	1,240	6,750
Hong Kong	656	332	166	199	17	83	632
Mexico	6,710	3,630	921	2,430	745	638	7,430
South Africa	3,110	905	280	1,000	164	220	2,290
Other	205	81	11	47	6	12	146
Total	23,000	9,510	2,060	6,170	2,070	2,320	20,100
Grand total	37,900	12,800	2,330	7,130	2,490	2,640	25,100
Other antimony compounds (gross weight)	94	19	--	37	--	--	57

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes revisions to prior months data.

Source: U.S. Census Bureau. Antimony content is calculated by the U.S. Geological Survey.